

CLAIMS

1. A citrullinated polypeptide derived from all or part of the sequence of the α -chain or of the β -chain of a vertebrate fibrin, by substitution of at least one arginine residue with a citrulline residue.
2. The citrullinated polypeptide as claimed in claim 1, derived from a sequence of at least 5 consecutive amino acids of the α -chain or of the β -chain of a vertebrate fibrin.
3. The citrullinated polypeptide as claimed in either of claims 1 and 2, characterized in that said vertebrate fibrin is a mammalian fibrin, preferably a human fibrin.
4. The use of a polypeptide as claimed in any one of claims 1 to 3, for diagnosing rheumatoid arthritis, *in vitro*.
5. An antigenic composition for diagnosing the presence of rheumatoid arthritis-specific autoantibodies in a biological sample, characterized in that it contains at least one citrullinated polypeptide as claimed in any one of claims 1 to 3, optionally labeled with and/or conjugated to a carrier molecule.
6. A method for detecting rheumatoid arthritis-specific autoantibodies in a biological sample, which method is characterized in that it comprises:
 - bringing said biological sample into contact with at least one polypeptide as claimed in any one of claims 1 to 3, under conditions which allow

~~the formation of an antigen/antibody complex with the rheumatoid arthritis-specific autoantibodies possibly present;~~

5 - detecting, by any suitable means, the antigen/antibody complex possibly formed.

7. A kit for detecting rheumatoid arthritis-specific autoantibodies in a biological sample, characterized in that it comprises at least one polypeptide as claimed in any one of claims 1 to 3, and also buffers and reagents suitable for constituting a reaction medium which allows the formation of an antigen/antibody complex, and/or means for detecting said antigen/antibody complex.

15

8. The use of a citrullinated polypeptide as claimed in any one of claims 1 to 3, for producing a medicinal product.

20 9. The use as claimed in claim 8, characterized in that said medicinal product is intended to neutralize the autoimmune response associated with RA.

25 10. A pharmaceutical composition, characterized in
 1 that it contains, as active principle, at least
 one citrullinated polypeptide as claimed in any
 one of claims 1 to 3.